

INSTRUCTORS

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A two-week backpacking field trip to the Katmai National Park, Alaska provides an opportunity to learn about volcanic processes through direct examination of volcanic products while exploring the Valley of Ten Thousand Smokes, the site of the largest volcanic eruption on Earth in the 20th century.

PREREQUISITES

Acceptance into the course is contingent upon: (1) A completed application, (2) a reference letter, (3) graduate standing, and (4) permission of the Instructor.

RESTRICTIONS

Students must be in good health, capable of hiking for at least 20 km per day carrying while carrying heavy backpacks, and willing to camp in remote, primitive, and potentially uncomfortable conditions. Basic conversational proficiency in English is required.

TEXTBOOK

Eichelberger, J.C. (2006). The Valley of Ten Thousand Smokes, Alaska. University of Alaska Fairbanks, 60 p. Additional required reading materials are listed below.

KEY CONCEPTS ADDRESSED

- Magma processes
- Subduction-related volcanism
- Products of volcanic activity
- Volcanic features and landforms
- Petrology of the Katmai group of volcanoes
- Volcano monitoring and public safety

STUDENT LEARNING OUTCOMES

Students will learn to identify pyroclastic flow deposits, lava flows, and tephra fall deposits, as well as describe their characteristics and discuss the origins of these volcanic deposits.

Students will gain the ability to make informed decisions while conducting scientific fieldwork in remote environments, adhering to safety requirements and communication protocols.

Students will develop and improve their skills in effective communication with peers from diverse cultural backgrounds.

Students will develop and refine their skills in presenting scientific concepts to peers.

Students will be able to make informed decisions about research opportunities in the North Pacific subduction region and engage in discussions on current topics and controversies in volcanology.

Students will build collegial relationships with peers from other countries, fostering future collaborative research opportunities.

COURSE STRUCTURE

The course consists of daylong hikes interspersed with lectures. During the hikes, students will examine lava flows, pyroclastic flows, air fall tephra, craters, fissures, faults, vents, crater lakes, and fumaroles spanning the common range of volcanic rock types from basalt to rhyolite. Field discussions and subsequent lectures will delve into the processes and mechanisms behind these volcanic phenomena.

COURSE SCHEDULE

The course will begin and end in Anchorage, Alaska. Students are responsible for arranging their own transportation to and from Anchorage, ensuring arrival by the late evening of Day 1 and departure in the late evening of Day 15. Please refer to the official course web page for the exact dates of the field trip:

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3 (Proficient)	2 (Competent)	1 (Novice)
Complete detailed description with annotated drawings; thoughtful discussion raising		